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09/767,163	01/22/2001	Hideshi Mochizuki	1115.65144	2571

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CHICAGO, IL 60606

EXAMINER

ORTIZ CRIADO, JORGE L

ART UNIT	PAPER NUMBER
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2697

DATE MAILED: 10/06/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/767,163

Applicant(s)

MOCHIZUKI ET AL.

Examiner

Jorge L Ortiz-Criado

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 21 July 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☐ Claim(s) \_\_\_\_\_ is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other:

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

1. Claim 1,2,6,7,11 and 12 are rejected under 35 U.S.C. 102(b) as being anticipated by Kim U.S. Patent No. 6,016,296.

Regarding claim 1, Kim discloses an information storage apparatus, operated by an electric power, for holding an information recording medium in a predetermined position and rotating the information recording medium in a predetermined direction to perform at least an information reproduction with respect to the information recording medium, said information storage apparatus (See col. 1, lines 6-7; col. 1, line 67 to col. 2, line 19; col. 2, lines 40-51; Fig. 2), line comprising:

a recognition section for recognizing whether or not said electric power is a power of a predetermined level or more (See col. 2, lines 52-55; Fig. 2, ref# 260); and

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a decelerator for decelerating rotation of said information recording medium in a first deceleration mode which consumes a relatively large power (See col. 2, lines 56-61; col. 3, lines 1-9; col. 3, lines 25-34; Fig. 2, ref# 270,250; Fig. 4, ref# 400)

decelerating the rotation of said information recording medium in a second deceleration mode which consumes a relatively small power depending upon whether said recognition section recognizes that said electric power is the power of the predetermined level or more (See col. 3, lines 1-9, lines 35-61; Fig. 4), or

that said electric power is less than the predetermined level (See col. 3, lines 1-9, lines 35-61; Fig. 4).

Regarding claim 2, Kim discloses a driver for driving said information recording medium in said predetermined direction, wherein said decelerator employs, as said second deceleration mode, a deceleration mode for stopping the driving by said driver to decelerate the rotation of said information recording medium (See col. 2, lines 40-61; col. 3, lines 1-9; Fig. 2, ref# 220,250,270)

Regarding claim 6, Kim discloses comprising a driver for receiving a signal indicating a rotation speed (See col. 2, lines 40-61; col. 3, lines 1-9; Fig. 2, ref# 220,250,270), and

driving the information recording medium in said predetermined direction in such a manner that said information recording medium rotates at the rotation speed indicated by the signal (See col. 2, lines 40-61; col. 3, lines 1-54; Fig. 4);

wherein said decelerator employs, as said second deceleration mode, a deceleration mode for inputting a signal indicating a rotation speed lower than the rotation speed of said information recording medium to said driver to decelerate the rotation of the information recording medium (See col. 2, lines 40-61; col. 3, lines 1-54; Fig. 4).

Regarding claim 7, Kim discloses a driver for receiving a signal indicating a rotation speed (See col. 2, lines 40-61; col. 3, lines 1-9; Fig. 2, ref# 220,250,270), and

driving the information recording medium in said predetermined direction in such a manner that said information recording medium rotates at the rotation speed indicated by the signal (See col. 2, lines 40-61; col. 3, lines 1-54; Fig. 4),

wherein said decelerator employs a deceleration mode for inputting a signal indicating a rotation speed lower than the rotation speed of said information recording medium to said driver to decelerate the rotation of the information recording medium and subsequently inputting a signal indicating a rotation speed further lower than the rotation speed indicated by the signal to said driver to further decelerate the rotation of said information recording medium as said second deceleration mode (See col. 2, lines 40-61; col. 3, lines 1-54; Fig. 4).

Regarding claim 11, Kim discloses an information storage apparatus for holding an information recording medium in a predetermined position and rotating the information recording medium in a predetermined direction to perform at least an information reproduction with respect to the information recording medium (See col. 1, lines 6-7; col. 1, line 67 to col. 2, line 19; col. 2, lines 40-51; Fig. 2), said information storage apparatus comprising:

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a driver for receiving a signal indicating a rotation speed (See col. 2, lines 40-61; col. 3, lines 1-9; Fig. 2, ref# 220,250,270), and

driving the information recording medium in said predetermined direction in such a manner that said information recording medium rotates at the rotation speed indicated by the signal (See col. 2, lines 40-61; col. 3, lines 1-54; Fig. 4); and

a signal controlling decelerator for inputting a signal indicating a rotation speed lower than the rotation speed of said information recording (See col. 2, lines 40-61; col. 3, lines 1-54; Fig. 4)

Regarding claim 12, Kim discloses wherein said signal controlling decelerator inputs the signal indicating the rotation speed lower than the rotation speed of said information recording medium to said driver to decelerate the rotation of the information recording medium (See col. 2, lines 40-61; col. 3, lines 1-54; Fig. 4),

and subsequently inputs a signal indicating a rotation speed further lower than the rotation speed indicated by the signal to said driver to further decelerate the rotation of said information recording medium (See col. 2, lines 40-61; col. 3, lines 1-54; Fig. 4).

2. Claim 9-10 are rejected under 35 U.S.C. 102(b) as being anticipated by Kühn U.S. Patent No. 5,715,157.

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Regarding claim 9, Kühn discloses an information storage apparatus for holding an information recording medium in a predetermined position and rotating the information recording medium in a predetermined direction to perform at least an information reproduction with respect to the information recording medium (See col. 1, lines 56-62; Fig. 1,4), said information storage apparatus comprising:

a brake for applying a brake force to said information recording medium to decelerate rotation (See col. 1, lines 56-62; col. 2, lines 11-20); and

an intermittent braking decelerator for intermittently operating said brake to decelerate the rotation of said information recording medium (See col. 2, lines 11-20; col. 3, lines 24-31)

Regarding claim 10, Kühn wherein said intermittent braking decelerator intermittently operates said brake to decelerate the rotation of said information recording medium, and subsequently continuously operates the brake to further decelerate the rotation of the information recording medium (See col. 2, lines 11-20; col. 3, lines 24-31).

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

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3. Claims 3-5,8 and 13 rejected under 35 U.S.C. 103(a) as being unpatentable over Kim U.S. Patent No. 6,016,296 in view of Kühn U.S. Patent No. 5,715,157.

Regarding claim 3, Kim discloses all the limitations based on claim 1, as outlined above.

Kim discloses a driver for driving said information recording medium in said predetermined direction (See col. 2, lines 56-61; col. 3, lines 1-9; col. 3, lines 25-34; Fig. 2, ref# 270,250; Fig. 4, ref# 400); and

decelerate the rotation, wherein said decelerator employs a deceleration mode for stopping the driving by said driver to decelerate the rotation of said information recording medium and subsequently decelerate the rotation of the information recording medium as said second deceleration mode (See col. 3, lines 1-9, lines 35-61; Fig. 4).

Kim does not expressly disclose a brake for applying a brake force to said information recording medium to decelerate the rotation.

However this feature is well known in the art as evidenced by Kühn, which discloses an information storage apparatus for holding an information recording medium in a predetermined position and rotating the information recording medium in a predetermined direction to perform at least an information reproduction with respect to the information recording medium comprising a brake for applying a brake force to said information recording medium to decelerate rotation (See col. 1, lines 56-62; col. 2, lines 11-20; col. 3, lines 24-31).

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to decelerate the rotation of the information recording medium, including a brake for applying a brake force in order to quickly and reliably operate the driver.



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Regarding claim 4, Kim discloses all the limitations based on claim 1, as outlined above.

Kim discloses decelerate the rotation, wherein said decelerator employs a deceleration mode for stopping the driving by said driver to decelerate the rotation of said information recording medium and subsequently decelerate the rotation of the information recording medium as said second deceleration mode (See col. 3, lines 1-9, lines 35-61; Fig. 4).

Kim does not expressly disclose a brake for applying a brake force to said information recording medium to decelerate the rotation, wherein said decelerator employs, as said second deceleration mode, a deceleration mode for intermittently operating said brake to decelerate the rotation of said information recording medium.

However this feature is well known in the art as evidenced by Kühn, which discloses an information storage apparatus for holding an information recording medium in a predetermined position and rotating the information recording medium in a predetermined direction to perform at least an information reproduction with respect to the information recording medium comprising a brake for applying a brake force to said information recording medium to decelerate the rotation, a deceleration mode for intermittently operating said brake to decelerate the rotation of said information recording medium (See col. 1, lines 56-62; col. 2, lines 11-20; col. 3, lines 24-31).

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to decelerate the rotation of the information recording medium, including for applying a brake force to said information recording medium to decelerate the rotation, a deceleration mode for intermittently operating said brake to decelerate the rotation of said information recording medium in order to quickly and reliably operate the driver.

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Regarding claim 5, Kim discloses all the limitations based on claim 1, as outlined above.

Kim discloses decelerate the rotation, wherein said decelerator employs a deceleration mode for decelerate the rotation of said information recording medium and subsequently continuously decelerate the rotation of the information recording medium as said second deceleration mode (See col. 3, lines 1-9, lines 35-61; Fig. 4).

Kim does not expressly disclose a brake for applying a brake force to said information recording medium to intermittently operating said brake.

However this feature is well known in the art as evidenced by Kühn, which discloses an information storage apparatus for holding an information recording medium in a predetermined position and rotating the information recording medium in a predetermined direction to perform at least an information reproduction with respect to the information recording medium comprising a brake for applying a brake force to said information recording medium to decelerate the rotation, a deceleration mode for intermittently operating said brake to decelerate the rotation of said information recording medium (See col. 1, lines 56-62; col. 2, lines 11-20; col. 3, lines 24-31).

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to decelerate the rotation of the information recording medium, including for applying a brake force to said information recording medium to decelerate the rotation, a deceleration mode for intermittently operating said brake to decelerate the rotation of said information recording medium in order to quickly and reliably operate the driver.

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Regarding claim 8, Kim discloses all the limitations based on claim 1, as outlined above.

Kim discloses a driver for receiving a signal indicating a rotation speed (See col. 2, lines 40-61; col. 3, lines 1-9; Fig. 2, ref# 220,250,270), and

driving the information recording medium in said predetermined direction in such a manner that said information recording medium rotates at the rotation speed indicated by the signal (See col. 2, lines 40-61; col. 3, lines 1-54; Fig. 4); and

decelerate the rotation, wherein said decelerator employs a deceleration mode for inputting a signal indicating a rotation speed lower than the rotation speed of said information recording medium to said driver to decelerate the rotation of the information recording medium and subsequently decelerate the rotation of the information recording medium as said second deceleration mode (See col. 2, lines 40-61; col. 3, lines 1-54; Fig. 4).

Kim does not expressly disclose a brake for applying a brake force to said information recording medium.

However this feature is well known in the art as evidenced by Kühn, which discloses an information storage apparatus for holding an information recording medium in a predetermined position and rotating the information recording medium in a predetermined direction to perform at least an information reproduction with respect to the information recording medium comprising a brake for applying a brake force to said information recording medium to decelerate rotation (See col. 1, lines 56-62; col. 2, lines 11-20; col. 3, lines 24-31).

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to decelerate the rotation of the information recording medium, including a brake for applying a brake force in order to quickly and reliably operate the driver.

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Regarding claim 13, Kim discloses all the limitations based on claim 11, as outlined above.

Kim discloses decelerate the rotation, wherein said signal controlling decelerator inputs the signal indicating the rotation speed lower than the rotation speed of said information recording medium to said driver to decelerate the rotation of the information recording medium, and subsequently decelerate the rotation of the information recording medium (See col. 2, lines 40-61; col. 3, lines 1-54; Fig. 4).

Kim does not expressly disclose a brake for applying a brake force to said information recording medium.

However this feature is well known in the art as evidenced by Kühn, which discloses an information storage apparatus for holding an information recording medium in a predetermined position and rotating the information recording medium in a predetermined direction to perform at least an information reproduction with respect to the information recording medium comprising a brake for applying a brake force to said information recording medium to decelerate rotation (See col. 1, lines 56-62; col. 2, lines 11-20; col. 3, lines 24-31).

Therefore it would have been obvious to one with ordinary skill in the art at the time of the invention to decelerate the rotation of the information recording medium, including a brake for applying a brake force in order to quickly and reliably operate the driver.

4. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

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- a. U.S. Patent No. 6,614,738 to Kim, which discloses an apparatus and method for controlling a reproduction speed of an optical disk based on a remaining battery energy.
- b. U.S. Patent No. 5,774,292 to Georgiou et al., which discloses a disk drive power management system and method.
- c. U.S. Patent No. 5,963,517 to Nakagaki et al., which discloses a disk reproducing speed control method for reducing speed automatically.
- d. U.S. Patent No. 5,701,284 to Lee, which discloses a disk rotation control apparatus for rapidly control the rotation of the disk.

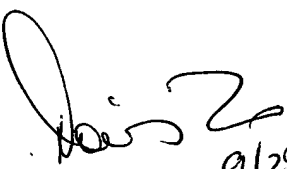
### *Conclusion*

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Jorge L Ortiz-Criado whose telephone number is (703) 305-8323. The examiner can normally be reached on Mon.-Thu.(8:30 am - 6:00 pm), Alternate Fridays off.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Doris H To can be reached on (703) 305-4827. The fax phone number for the organization where this application or proceeding is assigned is (703) 872-9306.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 305-3900.

joc

  
9/28/03  
DORIS H. TO  
SUPERVISORY PATENT EXAMINER  
TECHNOLOGY CENTER 2800